

SEQUENCE LISTING

<110> Quinn, Kerry E.
Pena, Carol A. E.
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Spaderna, Steven K.
Leite, Marlo W.

<120> Aortic Carboxypeptidase-Like Proteins and Nucleic Acids
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<211> 2205

<212> DNA

<213> Homo sapiens

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ccagcaggga	ccctcgaccc	cgtgagaaa	caagaaacag	gctgtcctcc	tttgggtctg	360
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<210> 5
 <211> 1725
 <212> DNA
 <213> Homo sapiens

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ccagcaggga	ccctcgaccc	cgtcgagaaa	caagaaacag	gctgtcctcc	tttgggtctg	360
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<211> 574
<212> PRT
<213> Homo sapiens

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Gly Thr Thr Lys Val Pro Gly Ser Thr Pro Ala Leu His Ser Ser Pro
35 40 45
Ala Gln Pro Pro Ala Glu Thr Ala Asn Gly Thr Ser Glu Gln His Val
50 55 60
Arg Ile Arg Val Ile Lys Lys Lys Lys Val Ile Met Lys Lys Arg Lys
65 70 75 80
Lys Leu Thr Leu Thr Arg Pro Thr Pro Leu Val Thr Ala Gly Pro Leu
85 90 95
Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu
100 105 110
Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser
115 120 125
Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg
130 135 140
Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp
145 150 155 160
Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val
165 170 175
Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg
180 185 190

Asn Ser Val Trp Arg Tyr Asp Trp Val Thr Ser Tyr Lys Val Gln Phe
 195 200 205

Ser Asn Asp Ser Arg Thr Trp Trp Gly Ser Arg Asn His Ser Ser Gly
 210 215 220

Met Asp Ala Val Phe Pro Ala Asn Ser Asp Pro Glu Thr Pro Val Leu
 225 230 235 240

Asn Leu Leu Pro Glu Pro Gln Val Ala Arg Phe Ile Arg Leu Leu Pro
 245 250 255

Gln Thr Trp Leu Gln Gly Gly Ala Pro Cys Leu Arg Ala Glu Ile Leu
 260 265 270

Ala Cys Pro Val Ser Asp Pro Asn Asp Leu Phe Leu Glu Ala Pro Ala
 275 280 285

Ser Gly Ser Ser Asp Pro Leu Asp Phe Gln His His Asn Tyr Lys Ala
 290 295 300

Met Arg Lys Leu Met Lys Gln Val Gln Glu Gln Cys Pro Asn Ile Thr
 305 310 315 320

Arg Ile Tyr Ser Ile Gly Lys Ser Tyr Gln Gly Leu Lys Leu Tyr Val
 325 330 335

Met Glu Met Ser Asp Lys Pro Gly Glu His Glu Leu Gly Glu Pro Glu
 340 345 350

Val Arg Tyr Val Ala Gly Met His Gly Asn Glu Ala Leu Gly Arg Glu
 355 360 365

Leu Leu Leu Leu Leu Met Gln Phe Leu Cys His Glu Phe Leu Arg Gly
 370 375 380

Asn Pro Arg Val Thr Arg Leu Leu Ser Glu Met Arg Ile His Leu Leu
 385 390 395 400

Pro Ser Met Asn Pro Asp Gly Tyr Glu Ile Ala Tyr His Arg Gly Ser
 405 410 415

Glu Leu Val Gly Trp Ala Glu Gly Arg Trp Asn Asn Gln Ser Ile Asp
 420 425 430

Leu Asn His Asn Phe Ala Asp Leu Asn Thr Pro Leu Trp Glu Ala Gln
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Asp Asp Gly Lys Val Pro His Ile Val Pro Asn His His Leu Pro Leu
 450 455 460

Pro Thr Tyr Tyr Thr Leu Pro Asn Ala Thr Val Ala Pro Glu Thr Arg
 465 470 475 480

Ala Val Ile Lys Trp Met Lys Arg Ile Pro Phe Val Leu Ser Ala Asn
 485 490 495

Leu His Gly Gly Glu Leu Val Val Ser Tyr Pro Phe Asp Met Val Thr
 500 505 510

Ala Ser Ala Glu Gly Tyr His Ser Val Thr Arg Asn Cys Arg Val Thr
 515 520 525

Phe Glu Glu Gly Pro Phe Pro Cys Asn Phe Val Leu Thr Lys Thr Pro
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Lys Gln Arg Leu Arg Glu Leu Leu Ala Ala Gly Ala Lys Val Pro Pro
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Asp Leu Arg Arg Arg Leu Glu Arg Leu Arg Gly Gln Lys Asp
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<210> 7
 <211> 1972
 <212> DNA
 <213> Homo sapiens

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<210> 8
 <211> 202
 <212> PRT
 <213> Homo sapiens

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 Gly Thr Thr Lys Val Pro Gly Ser Thr Pro Ala Leu His Ser Ser Pro
 35 40 45
 Ala Gln Pro Pro Ala Glu Thr Ala Asn Gly Thr Ser Glu Gln His Val
 50 55 60
 Arg Ile Arg Val Ile Lys Lys Lys Lys Val Ile Met Lys Lys Arg Lys
 65 70 75 80
 Lys Leu Thr Leu Thr Arg Pro Thr Pro Leu Val Thr Ala Gly Pro Leu
 85 90 95
 Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu
 100 105 110
 Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser
 115 120 125

Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg
 130 135 140

Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp
 145 150 155 160

Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val
 165 170 175

Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg
 180 185 190

Asp Pro Gly Leu Pro Ser Leu Arg Pro Gln
 195 200

<210> 9
 <211> 719
 <212> PRT
 <213> Mus musculus

<400> 9
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Thr Thr Arg Phe Thr Gly Val Ile Thr Gln Gly Arg Asp Ser Ser Ile
 35 40 45

His Asp Asp Phe Val Thr Thr Phe Phe Val Gly Phe Ser Asn Asp Ser
 50 55 60

Gln Thr Trp Val Met Tyr Thr Asn Gly Tyr Glu Glu Met Thr Phe Tyr
 65 70 75 80

Gly Asn Val Asp Lys Asp Thr Pro Val Leu Ser Glu Leu Pro Glu Pro
 85 90 95

Val Val Ala Arg Phe Ile Arg Ile Tyr Pro Leu Thr Trp Asn Gly Ser
 100 105 110

Leu Cys Met Arg Leu Glu Val Leu Gly Cys Pro Val Thr Pro Val Tyr
 115 120 125

Ser Tyr Tyr Ala Gln Asn Glu Val Val Thr Thr Asp Ser Leu Asp Phe

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Arg His His Ser Tyr Lys Asp Met Arg Gln Leu Met Lys Ala Val Asn		
145	150	155 160
Glu Glu Cys Pro Thr Ile Thr Arg Thr Tyr Ser Leu Gly Lys Ser Ser		
	165	170 175
Arg Gly Leu Lys Ile Tyr Ala Met Glu Ile Ser Asp Asn Pro Gly Asp		
	180	185 190
His Glu Leu Gly Glu Pro Glu Phe Arg Tyr Thr Ala Gly Ile His Gly		
	195	200 205
Asn Glu Val Leu Gly Arg Glu Leu Leu Leu Leu Met Gln Tyr Leu		
	210	215 220
Cys Gln Glu Tyr Arg Asp Gly Asn Pro Arg Val Arg Asn Leu Val Gln		
225	230	235 240
Asp Thr Arg Ile His Leu Val Pro Ser Leu Asn Pro Asp Gly Tyr Glu		
	245	250 255
Val Ala Ala Gln Met Gly Ser Glu Phe Gly Asn Trp Ala Leu Gly Leu		
	260	265 270
Trp Thr Glu Glu Gly Phe Asp Ile Phe Glu Asp Phe Pro Asp Leu Asn		
	275	280 285
Ser Val Leu Trp Ala Ala Glu Glu Lys Lys Trp Val Pro Tyr Arg Val		
	290	295 300
Pro Asn Asn Asn Leu Pro Ile Pro Glu Arg Tyr Leu Ser Pro Asp Ala		
305	310	315 320
Thr Val Ser Thr Glu Val Arg Ala Ile Ile Ser Trp Met Glu Lys Asn		
	325	330 335
Pro Phe Val Leu Gly Ala Asn Leu Asn Gly Gly Glu Arg Leu Val Ser		
	340	345 350
Tyr Pro Tyr Asp Met Ala Arg Thr Pro Ser Gln Glu Gln Leu Leu Ala		
	355	360 365
Glu Ala Leu Ala Ala Ala Arg Gly Glu Asp Asp Asp Gly Val Ser Glu		
	370	375 380
Ala Gln Glu Thr Pro Asp His Ala Ile Phe Arg Trp Leu Ala Ile Ser		

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Phe Ala Ser Ala His Leu Thr Met Thr Glu Pro Tyr Arg Gly Gly Cys						
	405		410		415	
Gln Ala Gln Asp Tyr Thr Ser Gly Met Gly Ile Val Asn Gly Ala Lys						
	420		425		430	
Trp Asn Pro Arg Ser Gly Thr Phe Asn Asp Phe Ser Tyr Leu His Thr						
	435		440		445	
Asn Cys Leu Glu Leu Ser Val Tyr Leu Gly Cys Asp Lys Phe Pro His						
	450		455		460	
Glu Ser Glu Leu Pro Arg Glu Trp Glu Asn Asn Lys Glu Ala Leu Leu						
465		470		475		480
Thr Phe Met Glu Gln Val His Arg Gly Ile Lys Gly Val Val Thr Asp						
	485		490		495	
Glu Gln Gly Ile Pro Ile Ala Asn Ala Thr Ile Ser Val Ser Gly Ile						
	500		505		510	
Asn His Gly Val Lys Thr Ala Ser Gly Gly Asp Tyr Trp Arg Ile Leu						
	515		520		525	
Asn Pro Gly Glu Tyr Arg Val Thr Ala His Ala Glu Gly Tyr Thr Ser						
	530		535		540	
Ser Ala Lys Ile Cys Asn Val Asp Tyr Asp Ile Gly Ala Thr Gln Cys						
545		550		555		560
Asn Phe Ile Leu Ala Arg Ser Asn Trp Lys Arg Ile Arg Glu Ile Leu						
	565		570		575	
Ala Met Asn Gly Asn Arg Pro Ile Leu Arg Val Asp Pro Ser Arg Pro						
	580		585		590	
Met Thr Pro Gln Gln Arg Arg Met Gln Gln Arg Arg Leu Gln Tyr Arg						
	595		600		605	
Leu Arg Met Arg Glu Gln Met Arg Leu Arg Arg Leu Asn Ser Thr Ala						
	610		615		620	
Gly Pro Ala Thr Ser Pro Thr Pro Ala Leu Met Pro Pro Pro Ser Pro						
625		630		635		640
Thr Pro Ala Ile Thr Leu Arg Pro Trp Glu Val Leu Pro Thr Thr Thr						

	645		650		655
Ala Gly Trp Glu Glu Ser Glu Thr Glu Thr Tyr Thr Glu Val Val Thr					
	660		665		670
Glu Phe Glu Thr Glu Tyr Gly Thr Asp Leu Glu Val Glu Glu Ile Glu					
	675		680		685
Glu Glu Glu Glu Glu Glu Glu Glu Met Asp Thr Gly Leu Thr Phe					
	690		695		700
Pro Leu Thr Thr Val Glu Thr Tyr Thr Val Asn Phe Gly Asp Phe					
	705		710		715
<210> 10					
<211> 1128					
<212> PRT					
<213> Mus musculus					
<400> 10					
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Leu Thr Leu Cys Pro Glu Gly Asn Pro Gln Thr Val Leu Thr Asp Asp					
	20		25		30
Glu Ile Glu Glu Phe Leu Glu Gly Phe Leu Ser Glu Leu Glu Thr Gln					
	35		40		45
Ser Pro Pro Arg Glu Asp Asp Val Glu Val Gln Pro Leu Pro Glu Pro					
	50		55		60
Thr Gln Arg Pro Arg Lys Ser Lys Ala Gly Gly Lys Gln Arg Ala Asp					
	65		70		75
Val Glu Val Pro Pro Glu Lys Asn Lys Asp Lys Glu Lys Lys Gly Lys					
		85		90	95
Lys Asp Lys Gly Pro Lys Ala Thr Lys Pro Leu Glu Gly Ser Thr Arg					
	100		105		110
Pro Thr Lys Lys Pro Lys Glu Lys Pro Pro Lys Ala Thr Lys Lys Pro					
	115		120		125
Lys Glu Lys Pro Pro Lys Ala Thr Lys Lys Pro Lys Glu Lys Pro Pro					
	130		135		140

Lys Ala Thr Lys Lys Pro Lys Glu Lys Pro Pro Lys Ala Thr Lys Arg
 145 150 155 160
 Pro Ser Ala Gly Lys Lys Phe Ser Thr Val Ala Pro Leu Glu Thr Leu
 165 170 175
 Asp Arg Leu Leu Pro Ser Pro Ser Asn Pro Ser Ala Gln Glu Leu Pro
 180 185 190
 Gln Lys Arg Asp Thr Pro Phe Pro Asn Ala Trp Gln Gly Gln Gly Glu
 195 200 205
 Glu Thr Gln Val Glu Ala Lys Gln Pro Arg Pro Glu Pro Glu Glu Glu
 210 215 220
 Thr Glu Met Pro Thr Leu Asp Tyr Asn Asp Gln Ile Glu Lys Glu Asp
 225 230 235 240
 Tyr Glu Asp Phe Glu Tyr Ile Arg Arg Gln Lys Gln Pro Arg Pro Thr
 245 250 255
 Pro Ser Arg Arg Arg Leu Trp Pro Glu Arg Pro Glu Glu Lys Thr Glu
 260 265 270
 Glu Pro Glu Glu Arg Lys Glu Val Glu Pro Pro Leu Lys Pro Leu Leu
 275 280 285
 Pro Pro Asp Tyr Gly Asp Ser Tyr Val Ile Pro Asn Tyr Asp Asp Leu
 290 295 300
 Asp Tyr Tyr Phe Pro His Pro Pro Pro Gln Lys Pro Asp Val Gly Gln
 305 310 315 320
 Glu Val Asp Glu Glu Lys Glu Glu Met Lys Lys Pro Lys Lys Glu Gly
 325 330 335
 Ser Ser Pro Lys Glu Asp Thr Glu Asp Lys Trp Thr Val Glu Lys Asn
 340 345 350
 Lys Asp His Lys Gly Pro Arg Lys Gly Glu Glu Leu Glu Glu Glu Trp
 355 360 365
 Ala Pro Val Glu Lys Ile Lys Cys Pro Pro Ile Gly Met Glu Ser His
 370 375 380
 Arg Ile Glu Asp Asn Gln Ile Arg Ala Ser Ser Met Leu Arg His Gly
 385 390 395 400

Leu Gly Ala Gln Arg Gly Arg Leu Asn Met Gln Ala Gly Ala Asn Glu
 405 410 415
 Asp Asp Tyr Tyr Asp Gly Ala Trp Cys Ala Glu Asp Glu Ser Gln Thr
 420 425 430
 Gln Trp Ile Glu Val Asp Thr Arg Arg Thr Thr Arg Phe Thr Gly Val
 435 440 445
 Ile Thr Gln Gly Arg Asp Ser Ser Ile His Asp Asp Phe Val Thr Thr
 450 455 460
 Phe Phe Val Gly Phe Ser Asn Asp Ser Gln Thr Trp Val Met Tyr Thr
 465 470 475 480
 Asn Gly Tyr Glu Glu Met Thr Phe Tyr Gly Asn Val Asp Lys Asp Thr
 485 490 495
 Pro Val Leu Ser Glu Leu Pro Glu Pro Val Val Ala Arg Phe Ile Arg
 500 505 510
 Ile Tyr Pro Leu Thr Trp Asn Gly Ser Leu Cys Met Arg Leu Glu Val
 515 520 525
 Leu Gly Cys Pro Val Thr Pro Val Tyr Ser Tyr Tyr Ala Gln Asn Glu
 530 535 540
 Val Val Thr Thr Asp Ser Leu Asp Phe Arg His His Ser Tyr Lys Asp
 545 550 555 560
 Met Arg Gln Leu Met Lys Ala Val Asn Glu Glu Cys Pro Thr Ile Thr
 565 570 575
 Arg Thr Tyr Ser Leu Gly Lys Ser Ser Arg Gly Leu Lys Ile Tyr Ala
 580 585 590
 Met Glu Ile Ser Asp Asn Pro Gly Asp His Glu Leu Gly Glu Pro Glu
 595 600 605
 Phe Arg Tyr Thr Ala Gly Ile His Gly Asn Glu Val Leu Gly Arg Glu
 610 615 620
 Leu Leu Leu Leu Leu Met Gln Tyr Leu Cys Gln Glu Tyr Arg Asp Gly
 625 630 635 640
 Asn Pro Arg Val Arg Asn Leu Val Gln Asp Thr Arg Ile His Leu Val
 645 650 655

Pro	Ser	Leu	Asn	Pro	Asp	Gly	Tyr	Glu	Val	Ala	Ala	Gln	Met	Gly	Ser	660	665	670
Glu	Phe	Gly	Asn	Trp	Ala	Leu	Gly	Leu	Trp	Thr	Glu	Glu	Gly	Phe	Asp	675	680	685
Ile	Phe	Glu	Asp	Phe	Pro	Asp	Leu	Asn	Ser	Val	Leu	Trp	Ala	Ala	Glu	690	695	700
Glu	Lys	Lys	Trp	Val	Pro	Tyr	Arg	Val	Pro	Asn	Asn	Asn	Leu	Pro	Ile	705	710	715
Pro	Glu	Arg	Tyr	Leu	Ser	Pro	Asp	Ala	Thr	Val	Ser	Thr	Glu	Val	Arg	725	730	735
Ala	Ile	Ile	Ser	Trp	Met	Glu	Lys	Asn	Pro	Phe	Val	Leu	Gly	Ala	Asn	740	745	750
Leu	Asn	Gly	Gly	Glu	Arg	Leu	Val	Ser	Tyr	Pro	Tyr	Asp	Met	Ala	Arg	755	760	765
Thr	Pro	Ser	Gln	Glu	Gln	Leu	Leu	Ala	Glu	Ala	Leu	Ala	Ala	Ala	Arg	770	775	780
Gly	Glu	Asp	Asp	Asp	Gly	Val	Ser	Glu	Ala	Gln	Glu	Thr	Pro	Asp	His	785	790	795
Ala	Ile	Phe	Arg	Trp	Leu	Ala	Ile	Ser	Phe	Ala	Ser	Ala	His	Leu	Thr	805	810	815
Met	Thr	Glu	Pro	Tyr	Arg	Gly	Gly	Cys	Gln	Ala	Gln	Asp	Tyr	Thr	Ser	820	825	830
Gly	Met	Gly	Ile	Val	Asn	Gly	Ala	Lys	Trp	Asn	Pro	Arg	Ser	Gly	Thr	835	840	845
Phe	Asn	Asp	Phe	Ser	Tyr	Leu	His	Thr	Asn	Cys	Leu	Glu	Leu	Ser	Val	850	855	860
Tyr	Leu	Gly	Cys	Asp	Lys	Phe	Pro	His	Glu	Ser	Glu	Leu	Pro	Arg	Glu	865	870	875
Trp	Glu	Asn	Asn	Lys	Glu	Ala	Leu	Leu	Thr	Phe	Met	Glu	Gln	Val	His	885	890	895
Arg	Gly	Ile	Lys	Gly	Val	Val	Thr	Asp	Glu	Gln	Gly	Ile	Pro	Ile	Ala	900	905	910

Asn Ala Thr Ile Ser Val Ser Gly Ile Asn His Gly Val Lys Thr Ala
915 920 925

Ser Gly Gly Asp Tyr Trp Arg Ile Leu Asn Pro Gly Glu Tyr Arg Val
930 935 940

Thr Ala His Ala Glu Gly Tyr Thr Ser Ser Ala Lys Ile Cys Asn Val
945 950 955 960

Asp Tyr Asp Ile Gly Ala Thr Gln Cys Asn Phe Ile Leu Ala Arg Ser
965 970 975

Asn Trp Lys Arg Ile Arg Glu Ile Leu Ala Met Asn Gly Asn Arg Pro
980 985 990

Ile Leu Gly Val Asp Pro Ser Arg Pro Met Thr Pro Gln Gln Arg Arg
995 1000 1005

Met Gln Gln Arg Arg Leu Gln Tyr Arg Leu Arg Met Arg Glu Gln Met
1010 1015 1020

Arg Leu Arg Arg Leu Asn Ser Thr Ala Gly Pro Ala Thr Ser Pro Thr
1025 1030 1035 1040

Pro Ala Leu Met Pro Pro Pro Ser Pro Thr Pro Ala Ile Thr Leu Arg
1045 1050 1055

Pro Trp Glu Val Leu Pro Thr Thr Thr Ala Gly Trp Glu Glu Ser Glu
1060 1065 1070

Thr Glu Thr Tyr Thr Glu Val Val Thr Glu Phe Glu Thr Glu Tyr Gly
1075 1080 1085

Thr Asp Leu Glu Val Glu Glu Ile Glu Glu Glu Glu Glu Glu Glu
1090 1095 1100

Glu Glu Met Asp Thr Gly Leu Thr Phe Pro Leu Thr Thr Val Glu Thr
1105 1110 1115 1120

Tyr Thr Val Asn Phe Gly Asp Phe
1125

<210> 11

<211> 845

<212> PRT

<213> Homo sapiens

<400> 11

Met Asp Tyr Tyr Phe Gly Pro Pro Pro Pro Gln Lys Pro Asp Ala Glu
1 5 10 15

Arg Gln Thr Asp Glu Glu Lys Glu Glu Leu Lys Lys Pro Lys Lys Glu
20 25 30

Asp Ser Ser Pro Lys Glu Glu Thr Asp Lys Trp Ala Val Glu Lys Gly
35 40 45

Lys Asp His Lys Glu Pro Arg Lys Gly Glu Glu Leu Glu Glu Glu Trp
50 55 60

Thr Pro Thr Glu Lys Val Lys Cys Pro Pro Ile Gly Met Glu Ser His
65 70 75 80

Arg Ile Glu Asp Asn Gln Ile Arg Ala Ser Ser Met Leu Arg His Gly
85 90 95

Leu Gly Ala Gln Arg Gly Arg Leu Asn Met Gln Thr Gly Ala Thr Glu
100 105 110

Asp Asp Tyr Tyr Asp Gly Ala Trp Cys Ala Glu Asp Asp Ala Arg Thr
115 120 125

Gln Trp Ile Glu Val Asp Thr Arg Arg Thr Thr Arg Phe Thr Gly Val
130 135 140

Ile Thr Gln Gly Arg Asp Ser Ser Ile His Asp Asp Phe Val Thr Thr
145 150 155 160

Phe Phe Val Gly Phe Ser Asn Asp Ser Gln Thr Trp Val Met Tyr Thr
165 170 175

Asn Gly Tyr Glu Glu Met Thr Phe His Gly Asn Val Asp Lys Asp Thr
180 185 190

Pro Val Leu Ser Glu Leu Pro Glu Pro Val Val Ala Arg Phe Ile Arg
195 200 205

Ile Tyr Pro Leu Thr Trp Asn Gly Ser Leu Cys Met Arg Leu Glu Val
210 215 220

Leu Gly Cys Ser Val Ala Pro Val Tyr Ser Tyr Tyr Ala Gln Asn Glu
225 230 235 240

Val Val Ala Thr Asp Asp Leu Asp Phe Arg His His Ser Tyr Lys Asp
245 250 255

Met Arg Gln Leu Met Lys Val Val Asn Glu Glu Cys Pro Thr Ile Thr
260 265 270

Arg Thr Tyr Ser Leu Gly Lys Ser Ser Arg Gly Leu Lys Ile Tyr Ala
275 280 285

Met Glu Ile Ser Asp Asn Pro Gly Glu His Glu Leu Gly Glu Pro Glu
290 295 300

Phe Arg Tyr Thr Ala Gly Ile His Gly Asn Glu Val Leu Gly Arg Glu
305 310 315 320

Leu Leu Leu Leu Leu Met Gln Tyr Leu Cys Arg Glu Tyr Arg Asp Gly
325 330 335

Asn Pro Arg Val Arg Ser Leu Val Gln Asp Thr Arg Ile His Leu Val
340 345 350

Pro Ser Leu Asn Pro Asp Gly Tyr Glu Val Ala Ala Gln Met Gly Ser
355 360 365

Glu Phe Gly Asn Trp Ala Leu Gly Leu Trp Thr Glu Glu Gly Phe Asp
370 375 380

Ile Phe Glu Asp Phe Pro Asp Leu Asn Ser Val Leu Trp Gly Ala Glu
385 390 395 400

Glu Arg Lys Trp Val Pro Tyr Arg Val Pro Asn Asn Asn Leu Pro Ile
405 410 415

Pro Glu Arg Tyr Leu Ser Pro Asp Ala Thr Val Ser Thr Glu Val Arg
420 425 430

Ala Ile Ile Ala Trp Met Glu Lys Asn Pro Phe Val Leu Gly Ala Asn
435 440 445

Leu Asn Gly Gly Glu Arg Leu Val Ser Tyr Pro Tyr Asp Met Ala Arg
450 455 460

Thr Pro Thr Gln Glu Gln Leu Leu Ala Ala Ala Met Ala Ala Ala Arg
465 470 475 480

Gly Glu Asp Glu Asp Glu Val Ser Glu Ala Gln Glu Thr Pro Asp His
485 490 495

Ala Ile Phe Arg Trp Leu Ala Ile Ser Phe Ala Ser Ala His Leu Thr
500 505 510

Leu Thr Glu Pro Tyr Arg Gly Gly Cys Gln Ala Gln Asp Tyr Thr Gly
515 520 525

Gly Met Gly Ile Val Asn Gly Ala Lys Trp Asn Pro Arg Thr Gly Thr
530 535 540

Ile Asn Asp Phe Ser Tyr Leu His Thr Asn Cys Leu Glu Leu Ser Phe
545 550 555 560

Tyr Leu Gly Cys Asp Lys Phe Pro His Glu Ser Glu Leu Pro Arg Glu
565 570 575

Trp Glu Asn Asn Lys Glu Ala Leu Leu Thr Phe Met Glu Gln Val His
580 585 590

Arg Gly Ile Lys Gly Val Val Thr Asp Glu Gln Gly Ile Pro Ile Ala
595 600 605

Asn Ala Thr Ile Ser Val Ser Gly Ile Asn His Gly Val Lys Thr Ala
610 615 620

Ser Gly Gly Asp Tyr Trp Arg Ile Leu Asn Pro Gly Glu Tyr Arg Val
625 630 635 640

Thr Ala His Ala Glu Gly Tyr Thr Pro Ser Ala Lys Thr Cys Asn Val
645 650 655

Asp Tyr Asp Ile Gly Ala Thr Gln Cys Asn Phe Ile Leu Ala Arg Ser
660 665 670

Asn Trp Lys Arg Ile Arg Glu Ile Met Ala Met Asn Gly Asn Arg Pro
675 680 685

Ile Pro His Ile Asp Pro Ser Arg Pro Met Thr Pro Gln Gln Arg Arg
690 695 700

Leu Gln Gln Arg Arg Leu Gln His Arg Leu Arg Leu Arg Ala Gln Met
705 710 715 720

Arg Leu Arg Arg Leu Asn Ala Thr Thr Thr Leu Gly Pro His Thr Val
725 730 735

Pro Pro Thr Leu Pro Pro Ala Pro Ala Thr Thr Leu Ser Thr Thr Ile
740 745 750

Glu Pro Trp Gly Leu Ile Pro Pro Thr Thr Ala Gly Trp Glu Glu Ser
755 760 765

Glu Thr Glu Thr Tyr Thr Glu Val Val Thr Glu Phe Gly Thr Glu Val
 770 775 780

Glu Pro Glu Phe Gly Thr Lys Val Glu Pro Glu Phe Glu Thr Gln Leu
 785 790 795 800

Glu Pro Glu Phe Glu Thr Gln Leu Glu Pro Glu Phe Glu Glu Glu Glu
 805 810 815

Glu Glu Glu Lys Glu Glu Glu Ile Ala Thr Gly Gln Ala Phe Pro Phe
 820 825 830

Thr Thr Val Glu Thr Tyr Thr Val Asn Phe Gly Asp Phe
 835 840 845

<210> 12

<211> 764

<212> PRT

<213> Mus musculus

<400> 12

Met Ala Arg Leu Gly Thr Ala Cys Pro Ala Leu Ala Leu Ala Leu Ala
 1 5 10 15

Leu Val Ala Val Ala Leu Ala Gly Val Arg Ala Gln Gly Ala Ala Phe
 20 25 30

Glu Glu Pro Asp Tyr Tyr Ser Gln Glu Leu Trp Arg Arg Gly Arg Tyr
 35 40 45

Tyr Gly His Pro Glu Pro Glu Pro Glu Pro Glu Leu Phe Ser Pro Ser
 50 55 60

Met His Glu Asp Leu Arg Val Glu Glu Gln Glu Gln Gln Arg Pro His
 65 70 75 80

Gln Gln Gly His Arg Thr Pro Lys Lys Ala Ile Lys Pro Lys Lys Ala
 85 90 95

Pro Lys Arg Glu Lys Leu Val Ala Glu Thr Pro Pro Pro Gly Lys Asn
 100 105 110

Ser Asn Arg Lys Gly Arg Arg Ser Lys Asn Leu Glu Lys Ala Ala Ser
 115 120 125

Asp Asp His Gly Val Pro Val Ala His Glu Asp Val Arg Glu Ser Cys

130	135	140
Pro Pro Leu Gly Leu Glu Thr Leu Lys Ile Thr Asp Phe Gln Leu His		
145	150	155 160
Ala Ser Thr Ser Lys Arg Tyr Gly Leu Gly Ala His Arg Gly Arg Leu		
	165	170 175
Asn Ile Gln Ala Gly Ile Asn Glu Asn Asp Phe Tyr Asp Gly Ala Trp		
	180	185 190
Cys Ala Gly Arg Asn Asp Leu His Gln Trp Ile Glu Val Asp Ala Arg		
	195	200 205
Arg Leu Thr Lys Phe Thr Gly Val Ile Thr Gln Gly Arg Asn Ser Leu		
	210	215 220
Trp Leu Ser Asp Trp Val Thr Ser Tyr Lys Val Met Val Ser Asn Asp		
	225	230 235 240
Ser His Thr Trp Val Thr Val Lys Asn Gly Ser Gly Asp Met Ile Phe		
	245	250 255
Glu Gly Asn Ser Glu Lys Glu Ile Pro Val Leu Asn Glu Leu Pro Val		
	260	265 270
Pro Met Val Ala Arg Val Ile Arg Ile Asn Pro Gln Ser Trp Phe Asp		
	275	280 285
Asn Gly Ser Ile Cys Met Arg Met Glu Ile Leu Gly Cys Pro Leu Pro		
	290	295 300
Asp Pro Asn Asn Tyr Tyr His Arg Arg Asn Glu Met Thr Thr Thr Asp		
	305	310 315 320
Asp Leu Asp Phe Lys His His Asn Tyr Lys Glu Met Arg Gln Leu Met		
	325	330 335
Lys Val Val Asn Glu Met Cys Pro Asn Ile Thr Arg Ile Tyr Asn Ile		
	340	345 350
Gly Lys Ser His Gln Gly Leu Lys Leu Tyr Ala Val Glu Ile Ser Asp		
	355	360 365
His Pro Gly Glu His Glu Val Gly Glu Pro Glu Phe His Tyr Ile Ala		
	370	375 380
Gly Ala His Gly Asn Glu Val Leu Gly Arg Glu Leu Leu Leu Leu		

385		390		395		400
Leu His Phe Leu Cys Gln Glu Tyr Ser Ala Gln Asn Ala Arg Ile Val						
	405		410		415	
Arg Leu Val Glu Glu Thr Arg Ile His Ile Leu Pro Ser Leu Asn Pro						
	420		425		430	
Asp Val Tyr Glu Lys Ala Tyr Glu Gly Gly Ser Glu Leu Gly Gly Trp						
	435		440		445	
Ser Leu Gly Arg Trp Thr His Asp Gly Ile Asp Ile Asn Asn Asn Phe						
	450		455		460	
Pro Asp Leu Asn Ser Leu Leu Trp Glu Ala Glu Asp Gln Gln Asn Ala						
465		470		475		480
Pro Arg Lys Val Pro Asn His Tyr Ile Ala Ile Pro Glu Trp Phe Leu						
	485		490		495	
Ser Glu Asn Ala Thr Val Ala Thr Glu Thr Arg Ala Val Ile Ala Trp						
	500		505		510	
Met Glu Lys Ile Pro Phe Val Leu Gly Gly Asn Leu Gln Gly Gly Glu						
	515		520		525	
Leu Val Val Ala Tyr Pro Tyr Asp Met Val Arg Ser Leu Trp Lys Thr						
	530		535		540	
Gln Glu His Thr Pro Thr Pro Asp Asp His Val Phe Arg Trp Leu Ala						
545		550		555		560
Tyr Ser Tyr Ala Ser Thr His Arg Leu Met Thr Asp Ala Arg Arg Arg						
	565		570		575	
Val Cys His Thr Glu Asp Phe Gln Lys Glu Glu Gly Thr Val Asn Gly						
	580		585		590	
Ala Ser Trp His Thr Val Ala Gly Ser Leu Asn Asp Phe Ser Tyr Leu						
	595		600		605	
Gly Thr Asn Cys Phe Glu Leu Ser Ile Tyr Val Gly Cys Asp Lys Tyr						
	610		615		620	
Pro His Glu Ser Glu Leu Pro Glu Glu Trp Glu Asn Asn Arg Glu Ser						
625		630		635		640
Leu Ile Val Phe Met Glu Gln Val His Arg Gly Ile Lys Gly Ile Val						

645	650	655
Arg Asp Leu Gln Gly Lys Gly Ile Ser Asn Ala Val Ile Ser Val Glu		
660	665	670
Gly Val Asn His Asp Ile Arg Thr Ala Ser Asp Gly Asp Tyr Trp Arg		
675	680	685
Leu Leu Asn Pro Gly Glu Tyr Val Val Thr Ala Lys Ala Glu Gly Phe		
690	695	700
Ile Thr Ser Thr Lys Asn Cys Met Val Gly Tyr Asp Met Gly Ala Thr		
705	710	715
Arg Cys Asp Phe Thr Leu Thr Lys Thr Asn Leu Ala Arg Ile Arg Glu		
725	730	735
Ile Met Glu Thr Phe Gly Lys Gln Pro Val Ser Leu Pro Ser Arg Arg		
740	745	750
Leu Lys Leu Arg Gly Arg Lys Arg Arg Gln Arg Gly		
755	760	

<210> 13
 <211> 722
 <212> PRT
 <213> Mus musculus

<400> 13

Met Trp Gly Leu Leu Leu Ala Val Thr Ala Phe Ala Pro Ser Val Gly			
1	5	10	15
Leu Gly Leu Gly Ala Pro Ser Ala Ser Val Pro Gly Leu Ala Pro Gly			
20	25	30	
Ser Thr Leu Ala Pro His Ser Ser Val Ala Gln Pro Ser Thr Lys Ala			
35	40	45	
Asn Glu Thr Ser Glu Arg His Val Arg Leu Arg Val Ile Lys Lys Lys			
50	55	60	
Lys Ile Val Val Lys Lys Arg Lys Lys Leu Arg His Pro Gly Pro Leu			
65	70	75	80
Gly Thr Ala Arg Pro Val Val Pro Thr His Pro Ala Lys Thr Leu Thr			
85	90	95	

Leu	Pro	Glu	Lys	Gln	Glu	Pro	Gly	Cys	Pro	Pro	Leu	Gly	Leu	Glu	Ser	100	105	110
Leu	Arg	Val	Ser	Asp	Ser	Gln	Leu	Glu	Ala	Ser	Ser	Ser	Gln	Ser	Phe	115	120	125
Gly	Leu	Gly	Ala	His	Arg	Gly	Arg	Leu	Asn	Ile	Gln	Ser	Gly	Leu	Glu	130	135	140
Asp	Gly	Asp	Leu	Tyr	Asp	Gly	Ala	Trp	Cys	Ala	Glu	Gln	Gln	Asp	Thr	145	150	155
Glu	Pro	Trp	Leu	Gln	Val	Asp	Ala	Lys	Asn	Pro	Val	Arg	Phe	Ala	Gly	165	170	175
Ile	Val	Thr	Gln	Gly	Arg	Asn	Ser	Val	Trp	Arg	Tyr	Asp	Trp	Val	Thr	180	185	190
Ser	Phe	Lys	Val	Gln	Phe	Ser	Asn	Asp	Ser	Gln	Thr	Trp	Trp	Lys	Ser	195	200	205
Arg	Asn	Ser	Thr	Gly	Met	Asp	Ile	Val	Phe	Pro	Ala	Asn	Ser	Asp	Ala	210	215	220
Glu	Thr	Pro	Val	Leu	Asn	Leu	Leu	Pro	Glu	Pro	Gln	Val	Ala	Arg	Phe	225	230	235
Ile	Arg	Leu	Leu	Pro	Gln	Thr	Trp	Phe	Gln	Gly	Gly	Val	Pro	Cys	Leu	245	250	255
Arg	Ala	Glu	Ile	Leu	Ala	Cys	Pro	Val	Ser	Asp	Pro	Asn	Asp	Leu	Phe	260	265	270
Pro	Glu	Ala	His	Thr	Leu	Gly	Ser	Ser	Asn	Ser	Leu	Asp	Phe	Arg	His	275	280	285
His	Asn	Tyr	Lys	Ala	Met	Arg	Lys	Leu	Met	Lys	Gln	Val	Asn	Glu	Gln	290	295	300
Cys	Pro	Asn	Ile	Thr	Arg	Ile	Tyr	Ser	Ile	Gly	Lys	Ser	His	Gln	Gly	305	310	315
Leu	Lys	Leu	Tyr	Val	Met	Glu	Met	Ser	Asp	His	Pro	Gly	Glu	His	Glu	325	330	335
Leu	Gly	Glu	Pro	Glu	Val	Arg	Tyr	Val	Ala	Gly	Met	His	Gly	Asn	Glu	340	345	350

Ala	Leu	Gly	Arg	Glu	Leu	Leu	Leu	Leu	Met	Gln	Phe	Leu	Cys	His	
	355						360					365			
Glu	Phe	Leu	Arg	Gly	Asp	Pro	Arg	Val	Thr	Arg	Leu	Leu	Thr	Glu	Thr
	370						375				380				
Arg	Ile	His	Leu	Leu	Pro	Ser	Met	Asn	Pro	Asp	Gly	Tyr	Glu	Thr	Ala
385						390				395					400
Tyr	His	Arg	Gly	Ser	Glu	Leu	Val	Gly	Trp	Ala	Glu	Gly	Arg	Trp	Thr
			405						410					415	
His	Gln	Gly	Ile	Asp	Leu	Asn	His	Asn	Phe	Ala	Asp	Leu	Asn	Thr	Gln
		420						425					430		
Leu	Trp	Tyr	Ala	Glu	Asp	Asp	Gly	Leu	Val	Pro	Asp	Thr	Val	Pro	Asn
	435						440					445			
His	His	Leu	Pro	Leu	Pro	Thr	Tyr	Tyr	Thr	Leu	Pro	Asn	Ala	Thr	Val
450						455					460				
Ala	Pro	Glu	Thr	Trp	Ala	Val	Ile	Lys	Trp	Met	Lys	Arg	Ile	Pro	Phe
465					470					475					480
Val	Leu	Ser	Ala	Asn	Leu	His	Gly	Gly	Glu	Leu	Val	Val	Ser	Tyr	Pro
			485						490					495	
Phe	Asp	Met	Thr	Arg	Thr	Pro	Trp	Ala	Ala	Arg	Glu	Leu	Thr	Pro	Thr
		500						505					510		
Pro	Asp	Asp	Ala	Val	Phe	Arg	Trp	Leu	Ser	Thr	Val	Tyr	Ala	Gly	Thr
	515						520					525			
Asn	Arg	Ala	Met	Gln	Asp	Thr	Asp	Arg	Arg	Pro	Cys	His	Ser	Gln	Asp
530						535					540				
Phe	Ser	Leu	His	Gly	Asn	Val	Ile	Asn	Gly	Ala	Asp	Trp	His	Thr	Val
545					550				555					560	
Pro	Gly	Ser	Met	Asn	Asp	Phe	Ser	Tyr	Leu	His	Thr	Asn	Cys	Phe	Glu
			565					570					575		
Val	Thr	Val	Glu	Leu	Ser	Cys	Asp	Lys	Phe	Pro	His	Glu	Lys	Glu	Leu
		580						585				590			
Pro	Gln	Glu	Trp	Glu	Asn	Asn	Lys	Asp	Ala	Leu	Leu	Thr	Tyr	Leu	Glu
	595					600						605			

Gln Val Arg Met Gly Ile Thr Gly Val Val Arg Asp Lys Asp Thr Glu
610 615 620

Leu Gly Ile Ala Asp Ala Val Ile Ala Val Glu Gly Ile Asn His Asp
625 630 635 640

Val Thr Thr Ala Trp Gly Gly Asp Tyr Trp Arg Leu Leu Thr Pro Gly
645 650 655

Asp Tyr Val Val Thr Ala Ser Ala Glu Gly Tyr His Thr Val Arg Gln
660 665 670

His Cys Gln Val Thr Phe Glu Glu Gly Pro Val Pro Cys Asn Phe Leu
675 680 685

Leu Thr Lys Thr Pro Lys Glu Arg Leu Arg Glu Leu Leu Ala Thr Arg
690 695 700

Gly Lys Leu Pro Pro Asp Leu Arg Arg Lys Leu Glu Arg Leu Arg Gly
705 710 715 720

Gln Lys

<210> 14

<211> 40

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 14

ctcgtcagat ctgcgcccag gaactcggtg ctgggcctcg

40

<210> 15

<211> 37

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 15

ctcgctcctcg agatcctttct gtccccttag ccgctcc

37

<210> 16

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 16

agcgcgcttg aggcacccag c

21

<210> 17

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 17

gtcggatgcc tcaagccggc t

21

<210> 18

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 18

ccagaaactc cagtgcctgaa c

21

<210> 19

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 19

gttagaact ggagtttctg g

21

<210> 20

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 20

caagcctagg gagcatgagc tg

22

<210> 21

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 21

cagctcatgc tccccaggct tg

22

<210> 22

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 22

caggacgatg ggaaggtgcc c

21

<210> 23

<211> 21

<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 23
gggcaccttc ccacgtcct g 21

<210> 24
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 24
agcatgaatg acttcagcta c 21

<210> 25
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 25
gtagctgaag tcattcatgc t 21

<210> 26
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 26
gagcttgga ttgctgacgc t 21

<210> 27
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 27
gggtcagcaa tcccaagctc

20

<210> 28
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 28
ctcgtcctcg agggtaagcc tatccctaac

30

<210> 29
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 29
ctcgtcgggc cctgatcag cgggtttaaa c

31

<210> 30
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically

Synthesized

<400> 30

gtctggagtc cctgcgagtt t

21

<210> 31

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 31

cggtgtggtc caagaccaa

19

<210> 32

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 32

cttgaggcat ccagcagcca gtcc

24

<210> 33

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 33

gagtcctgc gagtttcaga tag

23

<210> 34

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 34

gtcctcggtg tggccaaga

20

<210> 35

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 35

tgaggcatcc agcagccagt ccttt

25

<210> 36

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 36

gtgctgctgc tctacaataa cca

23

<210> 37

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 37

gtttctgcag ctgggcat

19

<210> 38
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 38
tggaccggtg cgccttcgat 20

<210> 39
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 39
gacgtgggat gcacacagct c 21

<210> 40
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Chemically
Synthesized

<400> 40
gttgcactgc tctgggggtca 20

<210> 41
<211> 67
<212> PRT
<213> Homo sapiens

<400> 41
Pro Asp Met Val Thr Ala Ser Ala Glu Gly Tyr His Ser Val Thr Arg
1 5 10 15

Asn	Cys	Arg	Val	Thr	Phe	Glu	Glu	Gly	Pro	Phe	Pro	Cys	Asn	Phe	Val
			20					25					30		

Leu	Thr	Lys	Thr	Pro	Lys	Gln	Arg	Leu	Arg	Glu	Leu	Leu	Ala	Ala	Gly
		35					40					45			

Ala	Lys	Val	Pro	Pro	Asp	Leu	Arg	Arg	Arg	Leu	Glu	Arg	Leu	Arg	Gly
	50					55					60				

Gln	Lys	Asp
65		

<210> 42
 <211> 69
 <212> PRT
 <213> Homo sapiens

Pro	Gly	Asp	Tyr	Met	Val	Thr	Ala	Ser	Ala	Glu	Gly	Tyr	His	Ser	Val
1				5					10					15	

Thr	Arg	Asn	Cys	Arg	Val	Thr	Phe	Glu	Glu	Gly	Pro	Phe	Pro	Cys	Asn
			20					25						30	

Phe	Val	Leu	Thr	Lys	Thr	Pro	Lys	Gln	Arg	Leu	Arg	Glu	Leu	Leu	Ala
		35						40				45			

Ala	Gly	Ala	Lys	Val	Pro	Pro	Asp	Leu	Arg	Arg	Arg	Leu	Glu	Arg	Leu
	50						55					60			

Arg	Gly	Gln	Lys	Asp
65				

<210> 43
 <211> 192
 <212> PRT
 <213> Homo sapiens

Met	Trp	Gly	Leu	Leu	Leu	Ala	Leu	Ala	Ala	Phe	Ala	Pro	Ala	Val	Gly
1				5					10					15	

Pro	Ala	Leu	Gly	Ala	Pro	Arg	Asn	Ser	Val	Leu	Gly	Leu	Ala	Gln	Pro
			20					25						30	

Gly Thr Thr Lys Val Pro Gly Ser Thr Pro Ala Leu His Ser Ser Pro
35 40 45

Ala Gln Pro Pro Ala Glu Thr Ala Asn Gly Thr Ser Glu Gln His Val
50 55 60

Arg Ile Arg Val Ile Lys Lys Lys Lys Val Ile Met Lys Lys Arg Lys
65 70 75 80

Lys Leu Thr Leu Thr Arg Pro Thr Pro Leu Val Thr Ala Gly Pro Leu
85 90 95

Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu
100 105 110

Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser
115 120 125

Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg
130 135 140

Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp
145 150 155 160

Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val
165 170 175

Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg
180 185 190

<210> 44

<211> 193

<212> PRT

<213> Homo sapiens

<400> 44

Met Trp Gly Leu Leu Leu Ala Leu Ala Ala Phe Ala Pro Ala Val Gly
1 5 10 15

Pro Ala Leu Gly Ala Pro Arg Asn Ser Val Leu Gly Leu Ala Gln Pro
20 25 30

Gly Thr Thr Lys Val Pro Gly Ser Thr Pro Ala Leu His Ser Ser Pro
35 40 45

Ala Gln Pro Pro Ala Glu Thr Ala Asn Gly Thr Ser Glu Gln His Val
50 55 60

Arg Ile Arg Val Ile Lys Lys Lys Lys Val Ile Met Lys Lys Arg Lys
65 70 75 80

Lys Leu Thr Leu Thr Arg Pro Thr Pro Leu Val Thr Ala Gly Pro Leu
85 90 95

Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu
100 105 110

Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser
115 120 125

Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg
130 135 140

Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp
145 150 155 160

Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val
165 170 175

Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg
180 185 190

Asn

<210> 45

<211> 510

<212> PRT

<213> Homo sapiens

<400> 45

Met Trp Gly Leu Leu Leu Ala Leu Ala Ala Phe Ala Pro Ala Val Gly
1 5 10 15

Pro Ala Leu Gly Ala Pro Arg Asn Ser Val Leu Gly Leu Ala Gln Pro
20 25 30

Gly Thr Thr Lys Val Pro Gly Ser Thr Pro Ala Leu His Ser Ser Pro
35 40 45

Ala Gln Pro Pro Ala Glu Thr Ala Asn Gly Thr Ser Glu Gln His Val

50	55	60
Arg Ile Arg Val Ile Lys Lys Lys Lys Val Ile Met Lys Lys Arg Lys		
65	70	75 80
Lys Leu Thr Leu Thr Arg Pro Thr Pro Leu Val Thr Ala Gly Pro Leu		
	85	90 95
Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu		
	100	105 110
Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser		
	115	120 125
Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg		
	130	135 140
Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp		
	145	150 155 160
Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val		
	165	170 175
Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg		
	180	185 190
Asn Ser Val Trp Arg Tyr Asp Trp Val Thr Ser Tyr Lys Val Gln Phe		
	195	200 205
Ser Asn Asp Ser Arg Thr Trp Trp Gly Ser Arg Asn His Ser Ser Gly		
	210	215 220
Met Asp Ala Val Phe Pro Ala Asn Ser Asp Pro Glu Thr Pro Val Leu		
	225	230 235 240
Asn Leu Leu Pro Glu Pro Gln Val Ala Arg Phe Ile Arg Leu Leu Pro		
	245	250 255
Gln Thr Trp Leu Gln Gly Gly Ala Pro Cys Leu Arg Ala Glu Ile Leu		
	260	265 270
Ala Cys Pro Val Ser Asp Pro Asn Asp Leu Phe Leu Glu Ala Pro Ala		
	275	280 285
Ser Gly Ser Ser Asp Pro Leu Asp Phe Gln His His Asn Tyr Lys Ala		
	290	295 300
Met Arg Lys Leu Met Lys Gln Val Gln Glu Gln Cys Pro Asn Ile Thr		

Arg Asn Cys Arg Val Thr Phe Glu Glu Gly Pro Phe Pro Cys Asn Phe
 20 25 30

Val Leu Thr Lys Thr Pro Lys Gln Arg Leu Arg Glu Leu Leu Ala Ala
 35 40 45

Gly Ala Lys Val Pro Pro Asp Leu Arg Arg Arg Leu Glu Arg Leu Arg
 50 55 60

Gly Gln Lys Asp
 65

<210> 47

<211> 193

<212> PRT

<213> Homo sapiens

<400> 47

Met Trp Gly Leu Leu Leu Ala Leu Ala Ala Phe Ala Pro Ala Val Gly
 1 5 10 15

Pro Ala Leu Gly Ala Pro Arg Asn Ser Val Leu Gly Leu Ala Gln Pro
 20 25 30

Gly Thr Thr Lys Val Pro Gly Ser Thr Pro Ala Leu His Ser Ser Pro
 35 40 45

Ala Gln Pro Pro Ala Glu Thr Ala Asn Gly Thr Ser Glu Gln His Val
 50 55 60

Arg Ile Arg Val Ile Lys Lys Lys Lys Val Ile Met Lys Lys Arg Lys
 65 70 75 80

Lys Leu Thr Leu Thr Arg Pro Thr Pro Leu Val Thr Ala Gly Pro Leu
 85 90 95

Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu
 100 105 110

Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser
 115 120 125

Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg
 130 135 140

Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp
 145 150 155 160

Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val
165 170 175

Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg
180 185 190

Asp